

1 26. A method of inhibiting tumor growth in a mammal
2 comprising administering to said mammal a compound which
3 inhibits HAAH hydroxylation of a NOTCH polypeptide.

1 27. The method of claim 26, wherein said compound
2 inhibits hydroxylation of an EGF-like repeat sequence in a
3 NOTCH polypeptide.

1 28. A method of killing a tumor cell comprising
2 contacting said tumor cell with cytotoxic agent linked to an
3 HAAH-specific antibody.

1 29. A monoclonal antibody that binds to an epitope
2 of HAAH.

1 30. The antibody of claim 29, wherein said epitope
2 is within a catalytic site of HAAH.

1 31. The antibody of claim 29, wherein said
2 monoclonal antibody is selected from the group consisting of
3 5C7, 5E9, 19B, 48A, 74A, 78A, 86A.

1 32. The antibody of claim 29, wherein said
2 monoclonal antibody is selected from the group consisting of
3 HA238A, HA221, HA239, HA241, HA329, or HA355.

1 33. A composition comprising a monoclonal antibody
2 that binds to an epitope of HAAH linked to a cytotoxic
3 agent, wherein said composition preferentially kills tumor
4 cells compared to non-tumor cells.

1 34. A kit for diagnosis of a tumor in a mammal,
2 comprising the antibody of claim 29.

1 35. The kit of claim 34, wherein said antibody is
2 immobilized on a solid phase.

1 36. The kit of claim 35, wherein said solid phase
2 is selected from a group consisting of an assay plate, an
3 assay well, a nitrocellulose membrane, a bead, a dipstick,
4 and a component of an elution column.

1 37. A method of determining whether a candidate
2 compound inhibits HAAH enzymatic activity, comprising

3 (a) providing a HAAH polypeptide;
4 (b) providing a polypeptide comprising an EGF-like
5 domain;

6 (c) contacting said HAAH polypeptide or said NOTCH
7 polypeptide with said candidate compound;

8 (d) determining hydroxylation of said polypeptide of
9 step (b), wherein a decrease in hydroxylation in the
10 presence of said candidate compound compared to that in the
11 absence of said compound indicates that said compound
12 inhibits HAAH enzymatic activity.

1 38. A method of determining whether a candidate
2 compound inhibits HAAH activation of NOTCH, comprising

3 (a) providing a cell expressing HAAH;
4 (b) contacting said cell with a candidate compound;
5 and

6 (c) measuring translocation of activated NOTCH to
7 the nucleus of said cell, wherein a decrease in
8 translocation in the presence of said compound compared to
9 that in the absence of said compound indicates that said
10 compound HAAH activation of NOTCH.